

Inaugural O'Donnell Brain Institute Symposium: Autism Spectrum Disorders

Thursday-Friday, March 25-26, 2021

<https://cme.utsouthwestern.edu/rp2103x>

Register now to attend!

PURPOSE AND CONTENT

Autism spectrum disorder (ASD) is one of the most common neurodevelopmental disorders, affecting one in fifty-five children in the United States. This symposium aims to update the community on new discoveries in the pathophysiology and causes of ASD as well as emerging novel treatments. The symposium will: 1) review novel ways to assess and characterize clinical features of patients with ASD, 2) review neural circuit mechanisms in both humans and animal models of ASD, 3) review insights gained from studying syndromic ASD, and 4) review novel treatments for ASD. Attendees will gain an understanding of the current state of research in the underlying pathophysiology of ASD as well as novel treatments to target those mechanisms.

EDUCATIONAL OBJECTIVES

Upon completion of this activity, participants should be able to:

- *Evaluate clinical phenotyping, genotyping, and biomarker development as critical tools for assessing ASD (Session 1)*
- *Identify the critical neural circuits that contribute to neurodevelopmental disabilities and behavior in ASD (Session 2)*
- *Analyze clinical presentation, disease mechanisms and latest research and treatment strategies for syndromic autisms (Session 3)*
- *Describe novel treatments being developed for ASD such as gene replacement therapy, cerebellar circuit modulation, and neuropsychopharmacology (Session 4).*

TARGET AUDIENCE

This symposium is designed for and open to physicians and others involved in autism research and clinical care of Autism Spectrum Disorders.

SPONSORED BY

UT Southwestern Peter O'Donnell Jr. Brain Institute and the UT Southwestern Office of Continuing Medical Education.

ACCREDITATION AND DESIGNATION STATEMENT

The University of Texas Southwestern Medical Center is accredited by the Accreditation Council for Continuing Medical Education (ACCME) to provide continuing medical education for physicians.

The University of Texas Southwestern Medical Center designates this live educational activity for a maximum of 14.5 AMA PRA Category 1 Credit™. Physicians should only claim credit commensurate with the extent of their participation in the activity.

The University of Texas Southwestern Medical Center certifies that non-physicians will receive an attendance certificate stating that they participated in the activity that was designated for 14.5 AMA PRA Category 1 Credit™.

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Day One – Thursday, March 25, 2021

TIME	TOPIC	SPEAKER
Session 1	Advancing Assessment and Characterization of Autism	
8:15 a.m. – 8:30 a.m.	Welcome – Opening Remarks	William Dauer, M.D.
8:30 a.m. – 9 a.m.	The Science Behind Interpreting a Genome Sequence in Thousands of Families with Autism	Stephen Scherer, Ph.D.
9 a.m. – 9:30 a.m.	Deciphering Autism: From Genetics to Mechanisms	Maria Chahrour, Ph.D.
9:30 a.m. – 10 a.m.	Toward Strategic Prevention in Autism Spectrum Disorder	Jed Elison, Ph.D.
10 a.m. – 10:30 a.m.	EEG Biomarkers for Improving Clinical Trials in Autism	Sara Webb, Ph.D.
10:30 a.m. – 11 a.m.	Mechanisms of Sensorimotor Impairment and Their Implications for Understanding Pathophysiology in ASD	Matthew Mosconi, Ph.D.
11 a.m. – 11:30 a.m.	Minority Underrepresentation in Autism Diagnoses	Patricia Evans, M.D., Ph.D.
11:30 a.m. – 12:30 p.m.	Session 1 Panel Discussion	Stephen Scherer, Ph.D. Maria Chahrour, Ph.D. Jed Elison, Ph.D. Sara Webb, Ph.D. Matthew Mosconi, Ph.D. Patricia Evans, M.D., Ph.D.
12:30 p.m. – 1:30 p.m.	Poster Session (Not for CME Credit)	Lunch Break – Poster Session

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TIME	TOPIC	SPEAKER
Session 2	Neural Circuit Mechanisms in Autism: Humans and Animal Models	
1:30 p.m. – 2 p.m.	Clinical Trial Readiness for Neurodevelopmental Disorders: On the Road to Precision	Shafali Jeste, M.D.
2 p.m. – 2:30 p.m.	Which Circuits? And How Often?	Jason Lerch, Ph.D.
2:30 p.m. – 3 p.m.	Cell Type-Specific Transcriptional Networks Related to Autism	Genevieve Konopka, Ph.D.
3 p.m. – 3:30 p.m.	Mechanisms of Sensory Cortical Dysfunction in Mouse Autism Models	Kimberly Huber, Ph.D.
3:30 p.m. – 4 p.m.	Arousal Modulation of Cortical Network Dynamics in Neurodevelopmental Disorders	Michela Fagiolini, Ph.D.
4 p.m. – 4:30 p.m.	Peripheral Sensory Neuron Dysfunction: Emerging Roles in Autism Spectrum Disorders	Lauren Orefice, Ph.D.
4:30 p.m. – 5:30 p.m.	Session 2 Panel Discussion	Shafali Jeste, M.D. Jason Lerch, Ph.D. Lauren Orefice, Ph.D. Kimberly Huber, Ph.D. Michela Fagiolini, Ph.D. Genevieve Konopka, Ph.D.
5:30 p.m.	Day One Adjourn	

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Day Two – Friday, March 26, 2021

TIME	TOPIC	SPEAKER
Session 3	Insights from Syndromic Autism; Humans and Animal Models	
8:30 a.m. 9 a.m.	Targeting mTOR: Therapies for Neurodevelopmental Disorders	Mustafa Sahin, M.D., Ph.D.
9 a.m. 9:30 a.m.	Fragile X Pathophysiology and Treatment: Obstacles and New Opportunities	Mark Bear, Ph.D.
9:30 a.m. 10 a.m.	Angelman Syndrome Biomarkers and Treatment Opportunities	Ben Philpot, Ph.D.
10 a.m. 10:30 a.m.	Mechanisms and Treatment Opportunities for Angelman Syndrome	Ype Elgersma, Ph.D.
10:30 a.m. 11 a.m.	Learning from Animal Models of Shank3 Mutations	Guoping Feng, Ph.D.
11 a.m. 12:15 p.m.	Session 3 Panel Discussion	Mustafa Sahin, M.D., Ph.D. Mark Bear, Ph.D. Ben Philpot, Ph.D. Ype Elgersma, Ph.D. Guoping Feng, Ph.D.
12:15 p.m. 1:15 p.m.	Poster Session (Not for CME Credit)	Lunch Break – Poster Session

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TIME	TOPIC	SPEAKER
Session 4	Therapeutic Opportunities for Autism	
1:30 p.m. – 2 p.m.	Refining Translational Medicine in Neurodevelopmental Disorders	Craig Erickson, M.D.
2 p.m. – 2:30 p.m.	Rethinking Approach to Clinical Trials in ASD	Evdokia Anagnostou, M.D.
2:30 p.m. – 3 p.m.	Clinical Trial Readiness for Neurodevelopmental Disorders	Kimberly Goodspeed, M.D.
3 p.m. – 3:30 p.m.	Prospects and Considerations for Gene Therapy for Neurodevelopmental Disorders	Steven Gray, Ph.D.
3:30 p.m. – 4:30 p.m.	Cerebellar Modulation of ASD-Relevant Behavior	Peter Tsai, M.D., Ph.D. Catherine Stoodley, D.Phil.
4:30 p.m. – 5:30 p.m.	Session 4 Panel Discussion	Craig Erickson, M.D. Evdokia Anagnostou, M.D. Kimberly Goodspeed, M.D. Steven Gray, Ph.D. Peter Tsai, M.D., Ph.D. Catherine Stoodley, D.Phil.
5:30 p.m.	Day Two Adjourn	